

Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

GENERAL INDEX

The most important classified entries will be found under Contributors and Reviews. New names and names of new genera, species, and varieties are printed in **bold-face** type; synonyms in *italic*.

Α

Absorptive power of soil 224 Acorus Calamus 400 Acqua, C. work of 160 Adventitious roots 303 Aerotropism 157 Agaricus pseudoboletus 334 Aglaonema versicolor 39 Albrecht, G., work of 471 Algae, of Iowa 399; parasitic 299; periodicity 158 Alpine Gramineae 422 Ambronn, H., work of 388 Anatomy, alpine grasses 422 Anderson, J. P., work of 399 Androstrobus Scotti 311 Angiosperms, and Gnetales 315; origin of 315; primitive 154 Anthers, sterile in Ribes 320 Anthocyan and chlorophyll 160 Antholithus Zeilleri 312 Apple, disease of 70 Araceae, morphology of 35 Araucarians 238 Arber, E. A. N., work of 154, 315 Archegoniatae, phylogeny of 397 Ardisia verapazensis 113 Armour, Helen M., work of 76 Arthur, J. C., "Uredinales" 467 Ascocarp, cytology of 75 Ascomycetes, cytology of 394 Assimilation and chlorophyll 389 Atkinson, George F. 299, 321, 462

В

Baccarini, P., work of 396
Bacteria, nitrogen fixing 316
Balanced solutions 302
Ball, O. M. 303
Barnes, Charles Reid 58, 62, 72, 73, 74, 77, 78, 80, 152, 153, 157, 158, 160, 234, 236, 239, 305, 306, 320, 387, 389, 396, 398, 400, 401, 468, 469, 470, 471, 472
Bäsecke, Paul, work of 72
Basidiobolus, nuclear division 78
Bataille, Frederic, "Flore monographique des Asterosporées" 152

Baumert, K., work of 72 Beans, disease of 70 Becquerel, Paul, work of 472 Benson, Margaret, work of 158, 317 Bergon, P., work of 320 Berry, Edward W., work of 238, 240 Bierberg, W., work of 320 Biologic types 230 Biometrical studies 64 Black rot 239, 239 Blakeslee, A. F. 384 Blood of plants 469 Bog water, toxic property of 130 Bokorny, Th., "Lehrbuch der Botanik" Boletus lucidus 334; obliquatus 334; rugosus 334 Bonn textbook 305 Boodle, L. A., work of 158 Bose's "Plant response" 58 Botanische Zeitung 472
Boulger, G. S., "Wood" 63
Bower, F. O., "The origin of a land flora" 56; work of 160
Brainerd, E., work of 74 Brandenburg, cryptogamic flora of 310 Bredemann, G., work of 316 Britton, N. L., and Shafer, J. A., "North American trees" 62 Brown, Henry B., work of 159 Brown, William A. 445 Browne, Isabel, work of 240 Bruschi, Dana, work of 390 Buchanan, R. E. 316; work of 399 Burgerstein, A. 387 Burlingame, L. L. 161 Burvenich, J. V., work of 65 Bushee, Grace L. 50

C

Calorimeter, a new respiration 193 Cameron, F. K., work of 233 Campbell, D. H., work of 74, 313 Capparis **Tuerckheimii** 109 Carnations, effect of illuminating gas 259 Centropogon calochlamys 112 Ceratiomyxa, sexuality in 80 Ceratozamia, seedling of 203 Chamberlain, Charles J. 75, 78, 79, 80, 155, 158, 159, 235, 237, 320, 397, 399, Characeae, phylogeny of 397 China, conifers of 78 Chlorophyll, and anthocyan 160; and assimilation 389 Chloroplasts, structure of 77 Chlorosis 78 Chromatin, vegetative activity of 393 Chromosomes, in Oenothera 1 Chrysanthemum, numerical relation in rays 349 Chrysler, M. A. 72 Church, A. H., "Types of floral mechanism" 150 Cleistogamy 397 Clidemia diffusa 112 Clinton, G. P. 467 CO2, from dead tissues 472 Cockerell, T. D. A., work of 79 Cocks, R. S., "Grasses of Louisiana" 64 Colorado, alpine grasses 422 Conifers of China 78 Contributors: Atkinson, G.F. 299, 321, 462; Ball, O. M. 303; Barnes, C. R. 58, 62, 72, 73, 74, 77, 78, 80, 152, 153, 157, 158, 160, 234, 236, 239, 305, 306, 320, 387, 389, 396, 398, 400, 401, 468, 469, 470, 471, 472; Blakeslee, A. F. 384; Brown, W. H. 445; Buchanan, R. E. 316; Burlingame, L. L. 161; Bushee, Grace L. 50; Chamberlain, C. J. 75, 78, 79, 80, 155, 158, 159, 235, 237, 320, 397, 399, 400; Chrysler, M. A. 72; Clinton, G. P. 467; Coulter, J. M. 43, 56, 62, 63, 64, 75, 76, 77, 78, 79, 80, 149, 150, 151, 152, 155, 156, 158, 159, 160, 231, 235, 238, 239, 240, 305, 306, 308, 309, 310, 314, 315, 316, 317, 318, 319, 320, 389, 399, 470; Crocker, William 259; Dachnowski, A. 130; Danforth, C. H. 349; Dorety, Helen A. 203; Eckerson, Sophia H. 221; Freeman, G. F. 118; Gates, R. R. 1; Gow, J. E. 35; Greenman, J. M. 308, 309; Harvey, L. H. 71, 81, 277; Heller, Charles 224; Hodson, E. R. 386; Holm, Theo. 170, 230, 312, 313, 317, 422; Jeffrey, E. C. 241, 311, 395, 397, 399; Kildahl, N. Johanna 339, 464; Knight, L. L. 259; Land, W. J. G. 401; Loew, Oscar 302; Olive, E. W. 394; Osterhout, W. J. V. 53; Parish, S. B. 147; Peirce, G. J. 68, 193; Pond, R. H. 237, 399, 410; Ramaley, Francis 381; Rosen, Joseph 224; Shull, G. H. 61, 74; Smith, John Donnell 109; Stevens, F. L. 71, 239, 320, 391, 392; Stokey,

Alma G. 160; Thiessen, Reinhardt 357; Thomson, R. B. 465; Yamanouchi, S. 75, 153, 232, 383, 394, 396. Cook, Melville T., work of 160 Copeland, E. B., work of 472 Cornus florida, morphology of 79 Correns, C., "Die Bestimmung und Vererbung des Geschlechtes" 148 Coulter, John M. 43, 56, 62, 63, 64, 75, 76, 77, 78, 79, 80, 149, 150, 151, 152, 155, 156, 158, 159, 160, 231, 235, 238, 239, 240, 305, 306, 308, 309, 310, 314, 315, 316, 317, 318, 319, 320, 389, 399, 470 Crataegus coloradoides 383; Doddsii 381 Crocker, William 259 Cunninghamia, gametophyte and embryo of 156 Cupule of Marchantia 401 Curatella americana pentagyna 109 Curvature, geotropic 158; and turgor 73 Cycadophytes, fossil 75 Cynomorium, mitosis in 396 Czapek, F., work of 387

D

Dachnowski, Alfred 130 Daisy, numerical variation in 349 Dalbergia tucurensis 111 Danforth, C. H. 349 Daphnosis radiata 115 Darbishire, A. D., work of 68 Darwin, Francis, work of 387 Date, invertase of 471 Davis, C. A., work of 70 DeBruyker, C., work of 66, 68 Derschau, M., work of 393 Desmids, index of 152 Diakinesis in Oenothera 12 Diatoms, biology of 320 Dicotyledons, anatomy of 153 Dictyozamites Johnstrupi 311 Dieffenbachia daraquiniana 37 Dioon edule, seedling of 357 Dipteris, sorus of 76 Diseases 69; barley smut 392; grape 392; black rot 239; pepper 70; sugar cane 69; tomato 391 Dorety, Helen A. 203 Dudley, Arthur H., work of 77 Dumortiera, autoicous 80

\mathbf{E}

Eckerson, Sophia H. 221 Embryo, of Araceae 35; of Cunninghamia 156; of Dioon 361; of Gnetum 43; of Phyllocladus 344; of Potamogeton 160; of Urticaceae 239 Embryo sac, of Araceae 35; of Gnetum

43; of Nymphaea advena 238; of Peperomia 445; of Urticaceae 239 Endodermis of ferns 72 Endosperm, of Araceae 35; of Gnetum 45; of Potamogeton 160; respiration and self-digestion 390 Engler, A., "Das Pflanzenreich" 151 Ernst, A., work of 80 Escoyez, Eud., work of 75 Ethylene, effect on carnations 259 Eurya guatemalensis 109 Eustace, H. J., work of 70

Fegatella, sexual condition in 384

Ferns, endodermis of 72; tracheae of 318 Fertilization in Polytrichum 234; in Phyllocladus 344 Figdor, W., work of 388 Floral, mechanism 150; succession in prairie-grass formation 81, 277 Florissant, fossil flora of 79 Flowering plants and ferns 389 Foliar gaps, Equisetales 248; Lepidodendreae 243; Lycopodiaceae 244; Lycopsida 241; Psilotaceae 246; Sigillariae 243 Fomes curtisii 336 Fraser, H. C. I., work of 75, 394 Freeman, George F. 118 Fritsch, K., work of 388 Fruit, diseases of 70 Fulton, H. R., work of 69, 70 Fungi, and hemicelluloses 470; of Iowa 399 Funkia, mitosis in 394

Gallagher, F. C., work of 233 Gamble, J. S., work of 68 Gametophyte, of Cunninghamia 156; male, of Microcachrys 465 Ganoderma flabellijorme 336; lucidum oregonense 336; pseudoboletus 335; pseudoboletus montanus 336; 334; pseudoboletus tsugae 335: pseudoboletus typicus 335; pseudoboletus 336; subperforatus 337; tsugae 335 Gardner, F. D., work of 233 Gates, R. R. 1 Genetics, Conference on 60 Georgevitch, Peter M., work of 80 Geotropism, curvature 158; cytology 80; and heliotropism 236 Germination of zoospores 400 Ginkgo 235 Gnetales and Angiosperms 315 Gnetum Gnemon, embryo sac and embryo 43

Goebel, K., work of 387, 396 Goffart, Jules, work of 313 Gonolobus **prasinanthus** 114 Gow, J. E. 35 Guatemala, undescribed plants from 109 Grafe, V., work of 388 Gramineae, alpine 422; schizostely in 317 Gratiola, anatomy of 312 Greece, flora of 152 Greenman, J. M. 308, 309 Green tissue, translocation of 398 Grégoire, Victor, work of 232 Griggs, Robert F., work of 159 Grout, A. J., "Mosses" 152 Guignard, L., work of 77 Gwynne-Vaughan, D. T., work of 318,

\mathbf{H}

Haberlandt, G., work of 158 Halácsy, E. de, "Conspectus Florae Graecae" 152 Hanausek, T. F., work of 387 Hannig, E., work of 238, 398, 472 Harreveld, Ph. van, work of 74 Harvey, LeRoy H. 71, 81, 277 Haydon, Walter T., work of 157 Heald, F. D., work of 392 Heliotropism, tone 236; and geotropism Heinricher, E., work of 388 Heller, Charles 224 Hemicelluloses, and fungi 470 Hepaticae, age of 74 Hill, A. W., work of 319 Hodson, E. R. 386 Holm, Theo. 170, 230, 312, 313, 317, 422; work of 80 Huchede, J., work of 312 Hulth, J. M., "Bibliographia Linnaeana" Hygroscopic movements 319; of living leaves 237

Illuminating gas, effect on carnations 259 Invertase, of date 471 Iowa, algae and fungi of 399 Irving, Annie A., work of 77 Isopyrum, anatomy of 80

Tames, Edwin 78 Janczewski, Ed., work of 320 Jeffrey, Edward C. 241, 311, 395, 397, 399; work of 156 Jones, Marcus E., "The willow family" Jurassic plants 470

K

Kammerer, P., work of 388 Karzel, R., work of 388 Kauffman, C. H., work of 316 Kearney, T. H., work of 77 Keeble, work of 68 Kerstan, K., work of 73 Kew Index 150 Kidston, R., work of 395 Kildahl, N. Johanna 339, 464 Klebs, G., work of 66 Klinostats 74 Knight, Lee I. 259 Knuth, Paul, "Handbook of flower pollination"_63 Kofoid, C. A., "Plankton of Illinois River" 149
Komarov, V., "Flora Manchuriae" 64
Koorders, S. H., work of 388
Kraemer, Henry, "Text-book of botany and pharmacognosy" 231, 389 Krasser, F., work of 388 Kylin, Harald, "Studien über die Algenflora" 151

\mathbf{L}

Lactarius and Russula 152 Laminariales, sieve tubes in 153 Land, W. J. G. 401 Leaves, alpine grasses 438; in autumn 239; hygroscopic movements of 237 Lemmermann, E., "Kryptogamenflora" Lepeschkin, W. W. 468 Lewis, Francis J., work of 74 Lignier, O., work of 319 Light perception 471; protection from 72 Lindemuth, H., work of 78 Linsbauer, K., work of 388 Litschauer, V., work of 387 Lloyd, F. E., "The physiology of stomata" 62 Loew, Oscar 302 Lopriore, G., work of 388 Lubimenko, W., work of 389 Lupinus albus, lateral roots of 413 Lycopodiaceae, sporangia of 159 Lycopod with seedlike structure 158 Lycopsida, foliar gaps in 241

M

MacLeod, J., work of 65 Maple syrup, mold of 392 Marchantia, blepharoplast and centrosome 75; cupule 401 Marine algae of Sweden 151 Marty, Pierre, work of 399 Masters, Maxwell T., work of 78 Melia, Azedarach, adventitious roots 303 Mendel's law in violet hybrids 74 Miconia oligocephala 111; purulensis 111 Microcachrys, pollen of 465 Microsphaera, cytology of 79 Mikosch, C., work of 388 Mitosis, in Ascomycetes 394; in Basidiobolus 78; in Cynomorium 396; in Funkia 399; heterotypic in Oenothera 15; homotypic in Oenothera 17 Miyake, Kiichi, work of 156 Möbius, M., work of 387 Modilewsky, Jakob, work of 239 Mold of maple syrup 392 Molisch, H., work of 387 Morse, William Clifford, work of 79 Mosses, Grout's 152; spermatogenesis in Molér, T., work of 160 Mücke, M., work of 400

Ν

Myriocarpa **obovata** 117

Nabokick, A. J., work of 472
Nathorst, A. G., work of 310, 399
Nathorstia 311
Němec, B., work of 388
Nephthytis Gravenreuthii 35
Nestler, A., work of 388
Nitrogen, fixation of free 472
Noll, F., "Text-book of botany" 305
Nordstedt, C. F. O., "Index Desmidiacearum" 152
Norén, C. O., work of 237
North American Flora 64, 151
Nymphaea advena, embryo sac of 238

\cap

Oenothera, diakinesis 12; heterotypic mitosis 15; homotypic mitosis 17; pollen degeneration 19; reduction 1; synapsis 7
Olive, E. W. 394; work of 78, 80, 314, 320
Ophioglossum simplex 160
Osmotic pressure, and turgor 468
Osmundaceae, fossil 395
Osterhout, W. J. V. 53

р

Pachyrhizus angulatus integrifolius 110 Paleocene flora 399 Paleobotanical notes 310; technique 399 Palladin, W., work of 460 Pammel, L. H., work of 78 Parish, S. B. 147 Parkin, J., work of 154, 315 Pearl, R., work of 67 Peat 71; bogs, Scottish 75 Peirce, G. J. 68, 193 Peperomia, arifolia 450; embryo sac of 445; pellucida 452; Sintensii 446 Pestalozzia uvicola 392 Pflanzenreich 151 Phyllocladus, affinities of 464; alpinus 389 Picramnia brachybotryosa 110 Picea, resin vesicles in 386 Pilea echolophylla 115; purulensis 115; riparia 116; Tuerckheimii 116 Pinus, ancestor of 156; seed production in 157 Plankton of Illinois River 149 Plant anatomy 306 Plasmolysis 53 Podocarpus, staminate cone and male gametophyte 161 Podostemaceae, morphology of 318 Polar plants, fossil 397 Pollen degeneration, in Oenothera 19; of Microcachrys 465 Polowzow, W., work of 157 Polyporus curtisii 336; laccatus 334; lucidus 321; lucidus 334 Polytrichum, reduction and fertilization in Pond, Raymond H. 237, 390, 410 Pool, V. W., work of 391, 392 Porodke, T., work of 158 Porsch, Otto, work of 155 Potamogeton, embryo and endosperm of Prairie-grass formation 81; cession in 277 Priestly, J. H., work of 77 Pringsheim, Ernst, work of 236 Proteases 76 Prothallia, dwarf male 158; of Kaulfussia and Gleichenia 313 Protoplasmic relations 320; streaming 50 Przibram, H., work of 388 Pseudocycas 310 Pteridophytes, phylogeny of 240

R

Raciborski, M., work of 388
Radioactivity 160
Ramaley, Francis 381
Ranunculaceae, anatomy of leaves 313
Reddick, Donald, work of 239
Red gum, sap rot of 79
Reduction, in Polytrichum 234; in
Oenothera 1
Resin vesicles, in bark of Picea 386

Respiration, a new calorimeter 193; endospermic 390

Reviews: Arthur's "Uredinales" 467; Bataille's "Flore monographique des Asterosporées" 152; Bokorny's "Lehrbuch der Botanik" 308; Bose's "Plant response" 58; Boulger's "Wood" 63; Bower's "The origin of a land flora" 56; Britton and Shafer's "North American trees" 62; Church's "Types of floral mechanism" 150; Cocks's "Grasses of Louisiana" 64; Correns' "Die Bestimmung und Vererbung des Geschlechtes" 148; Engler's "Das Pflanzenreich" 151; Grout's "Mosses" 152; Halácsy's "Conspectus Florae Graecae" 152; Hulth's "Bibliographia Linnaeana" 308; Jones's "The willow family" 64; Knuth's "Handbuch of flower pollination" 63; Kofoid's 63; "Plankton of Illinois River" 149; Komarov's "Flora Manchuriae" 64; Kraemer's "Text-book of botany and pharmacognosy" 231, 389; Kylin's "Studien über die Algenflora" 151; "Studien uber die Algennora 151; Lemmermann's "Kryptogamenflora" 310; Lloyd's "The physiology of stomata" 62; Noll's "Text-book of botany" 305; Nordstedt's "Index Des-midiacearum" 152; Schenck's "A text-book of botany" 365; Solereder's "Scheretische Argetenio der Discety "Systematische Anatomie der Dicotyledonen" 153; Steven's "Plant anatomy" 306; Strasburger's "A text-book of botany" 205; Von Hayek's "Flora von Steiermark" 309; Warming's von Steiermark" 309; Warming's "Om Planterigets Livsformer" 230; Willis' "A manual and dictionary of the flowering plants and ferns" 309 Rhodochytrium spilanthidis 299 Ribes, sterile anthers of 320 Richter, O., work of 387 Riella 396 Ritzerow, Helene, work of 397 Roots, alpine grasses 432; lateral emergence of 410; of Sisyrinchium 182 Rorer, J. B., work of 70 Rosendahl, C. O., work of 76 Rosen, Joseph 224 Rumpf, G., work of 224 Rusts, 320; sexual reproduction in 314

S

Rywosch, S., work of 398

Salts, tolerance for 77
Samec, M., work of 387
Sands, M. C., work of 79
Saprolegnia, variation of sexual organs
316

Sap rot of red gum 79 Sargant, Ethel, work of 154 Sargent, C. S., work of 80 Sauvagau, Camille, work of 400 Schaffner, John H., work of 155 Schellenberg, H. C., work of 470 Schenck, Heinrich, "A text-book of botany" 305; work of 397 Schiffner, V., work of 388 Schiller, Josef, work of 399 Schinz, H., work of 319 Schizostely in Gramineae 317 Scion and stock 77 Scott, W. M., work of 70 Seaton, Sara, work of 238 Seedling, of Ceratozamia 203 Self-digestion and endospermic respiration 390 Senft, E., work of 387 Seward, A. C., work of 470 Sex, Correns on 148; in rusts 312; in Ceratiomyxa 80 Shaw, F. J. F., work of 235 Shull, George H. 61, 74 Sieve tubes 319 Sisyrinchium, anatomical studies 170; leaves 185; rhizomes 184; roots 182 Skraup, Z. H., work of 388 Smith, John Donnell 109 Soil, absorptive power of 224; fertility Solenophora Tuerckheimiana 114 Solereder, H., "Systematische Anatomie der Dicotyledonen" 153 Solutions, balanced 302 South Dakota, prairie-grass formation 81, 277 Sphaeropsis 392 Sphenophyllales, origin of 319 Spermatogenesis in mosses 400 Sporangiophore 317 Sporangia of Lycopodiaceae 159 Sprecher, Andreas, work of 235 Steinbrinck, C., work of 319 Stems, alpine grasses 434 Stevens, F. L. 71, 239, 320, 392, 392 Stevens, Wm. C., "Plant anatomy" 306 Stokey, Alma G. 160 Stoklasa, J., work of 388 Stomata, number and size 221; physiology of 62 Stoward, Frederick, work of 391 Strasburger, E., "A text-book of botany" 305; work of 387 Strobilus of Phyllocladus 339 Strohmer, M., work of 388 Stylogyne phaenostemona 113 Styria, flora of 309 Sweden, marine algae of 151 Sykes, M. G., work of 153, 159, 394

Symbiosis 68 Symplocarpus, morphology of 76 Synapsis 232; in Oenothera 7 Synchytrium, cytology of 159

\mathbf{T}

Thiessen, Reinhardt 357 Thomson, R. B. 465 Torreya in the Cretaceous 240 Torula saccharina 392 Toxic property of bogwater 130 Tracheae of ferns 318 Translocation of green tissues 398 Transpiration, quantitative determination of 118 Trees and shrubs 80 Trelease, William, work of 387 Tricholoma **venenatum** 462 Tschirch, A., work of 387 Tswett, M., work of 239, 240 Turgor, and curvature 73; and osmotic pressure 468 Tuzson, Johann, work of 397

U

Ulva, development of 399 Uredineae, N. Am. 467 Urticaceae, embryo sac and embryo 239

\mathbf{v}

Van Leeuwen-Reijnvaan, J. and W., work of 234, 400
Variegation 78
Vascular anatomy, of Dioon 357
Van Tieghem, Ph., work of 117
Veronica, anatomy of 312
Vicia faba, lateral roots of 412
Vines, S. H., work of 76
Vinton, A. E., work of 471
Von Guttenberg, H. Ritter, work of 236
Von Hayek, August, "Flora von Steiermark" 309
Von Höhnel, Fr., work of 387
Von Portheim, L., work of 387
Von Schrenk, H., work of 388
Von Weitstein, R., work of 388

117

Warming, E., "Om Planterigets Livs former" 230 Washingtonia, flowers of 144 Wegschneider, R., work of 388 Welsford, E. J., work of 394 Went, F. A. F. C., work of 318
Wheat, morphology of 77
Wieland, G. R., work of 75
Wiesner Festchrift 387
Wilhelm, K., work of 388
Willis, J. C., "A manual and dictionary of the flowering plants and ferns" 309
Wilson, C. S., work of 239
Wolf, F. A., work of 392

Y

Yamanouchi, Shigéo 75, 153, 232, 393, 394, 396

Z

Zeitschrift für Botanik 472 Zikes, H., work of 388 Zoospores, germination 400